



# Sector Report: Oil and Gas in Burma



*Yadanar Gas Field in the Andaman Sea*

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## UKTI in Burma

The British Government opened a UKTI office in Burma in July 2012 to support responsible British investment and trade. For more information and to access our exporting to Burma guide, please visit: <https://www.gov.uk/government/publications/exporting-to-burma>

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## Why the time is right to do business in oil and gas

- New political reforms introduced in 2011 have seen sanctions lifted, allowing international oil and gas companies to enter the market
- In January 2013, Burma announced tenders for 18 onshore oil blocks with offers for a further 50 offshore blocks pending
- Research firm, IHS Global Insights estimates that Burma possesses 3.2 billion barrels of oil and 18 trillion cubic feet (tcf) of natural gas reserves – making it one of the world’s hotspots for exploration
- The Government of Burma has a desire to attract businesses that meet international standards in health, safety and the environment.

## History and overview of Burma’s gas and oil sector

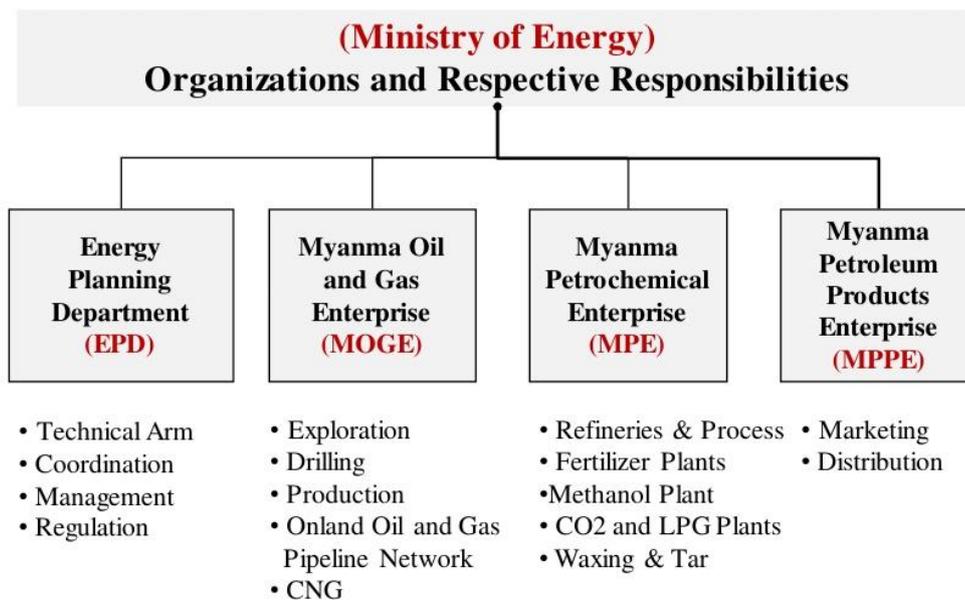
Burma is one of the world's oldest oil producers, having exported its first barrel more than 150 years ago. The UK’s involvement in the sector dates back to 1886, when the Scottish owned Burmah Oil Company (BOC) became the first foreign oil company to drill in Burma. BOC – which in 2000 was acquired by BP – discovered the Yenangaung field in 1887 and the Chauk field in 1902. BOC enjoyed a monopoly in the sector until 1901, when America’s Standard Oil Company launched operations in Burma. Nonetheless, BOC continued to dominate the country’s oil and gas sector until 1962, when the industry was nationalised after a socialist military regime came to power. The nationalised assets of Burmah Oil Company were amalgamated to state-owned Myanmar Oil and Gas Enterprise (MOGE).

The regime assumed complete ownership of resources, with MOGE carrying out the vast majority of oil exploration and production. Private operators occasionally carried out projects under production sharing contracts – however a strict nationalistic policy and the lack of an appropriate legal framework resulted in an absence of foreign operators until very recently.

In addition to MOGE, the Ministry of Energy continues to oversee two other state-owned enterprises: Myanmar Petrochemical Enterprise (MPE) and Myanmar Petroleum Products

Enterprise (MPPE). MPE is responsible for oil and gas exploration and production, as well as domestic gas transmission, while MPPE manages retail and wholesale distribution of petroleum products. These bodies are also responsible for issuing tenders to foreign companies. While there has been talk that these entities may become privatised in the future – and MPE announced in July that it is seeking a foreign partner to launch a joint venture in a bid to privatise an oil refinery – no further information has been publicly disclosed. Nonetheless, the opportunity for a foreign firm to benefit from the sale of petroleum products for the first time is an indication that Burma is embarking on a new phase of managing its oil and gas resources.

### Organisational chart – Ministry of Energy



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The first signs of change occurred in 1988, when a foreign investment law was passed and the government began to source technology and capital from foreign companies in a bid to revive its dwindling oil industry. However despite possessing rich reserves – both known and potential – Burma’s oil output remains small.

By contrast, gas comprises 90 percent of total products and Burma is the 10<sup>th</sup> largest producer of natural gas globally – the bulk of which is exported to China and Thailand.

Burma has estimated proven gas reserves of 10 trillion cubic feet and proven oil reserves of 50 million barrels, according to the US Energy Information Administration. The Burmese Ministry of Energy has indicated that potential reserves may be significantly higher. Burma's proven reserves are worth an estimated US\$75 billion.

### Burma's global standing in natural gas reserves

| Natural gas proven reserves - World Fact Book |                |                      |
|---|----------------|----------------------|
| Ranking                                       | Country        | Proven reserves (m3) |
| 1   | Russia         | 48,700,000,000,000   |
| 2   | Iran           | 33,600,000,000,000   |
| 3   | Qatar          | 25,100,000,000,000   |
| 4   | Turkmenistan   | 17,500,000,000,000   |
| 5   | United States  | 9,460,000,000,000    |
| 6   | Saudi Arabia   | 8,200,000,000,000    |
| 7   | Venezuela      | 5,524,500,000,000    |
| 8   | Nigeria        | 5,246,000,000,000    |
| 9   | Algeria        | 4,502,000,000,000    |
| 10  | Australia      | 4,300,000,000,000    |
| 11  | Iraq           | 3,600,000,000,000    |
| 12  | China          | 3,100,000,000,000    |
| 13  | Indonesia      | 3,001,000,000,000    |
| 14  | Kazakhstan     | 1,900,000,000,000    |
| 15  | Malaysia       | 2,350,000,000,000    |
| 38  | Thailand       | 342,000,000,000      |
| 40  | United Kingdom | 292,000,000,000      |
| 41  | Burma          | 283,200,000,000      |
| World   |                | 187,300,000,000,000  |

However, according to data from the Ministry of Energy, Burma produced only 42 percent of gasoline and 11 percent of the diesel consumed in the 2013-14 fiscal year. The shortfall was met by importing 97 million gallons of gasoline and 330 million gallons of diesel – the majority of which was imported from Thailand and Singapore.

In recognition of its limited domestic capacity, the Government of Burma and the Asian Development Bank (ADB) published a long-term plan to conserve energy resources, which is titled New Energy Architecture Myanmar (please refer to annex for a link). This involves schemes for storage to ensure fuel availability in the future and plans for the operation and extraction of oil and gas from onshore and offshore fields.

## **Boosting local capacity through production sharing contracts (PSC)**

The government has recognised its domestic capacity is limited and is keen to attract greater foreign investment and technical assistance. Production-sharing contracts are awarded through direct negotiations or licensing rounds. The first licensing rounds for oil and natural gas fields took place in 2011 and during the past 12 months, the Government of Burma has awarded 16 onshore and 20 offshore blocks to foreign and domestic companies. The 20 offshore blocks comprise 10 that are deepwater and 10 which are shallow-water.

For onshore and shallow water blocks, potential bidders must cooperate with at least one Burmese-owned company which is registered with the Energy Planning Department. Bidders for deep offshore blocks are not required to partner with a Burmese company.

### **UKTI TIP:**

- MOGE does not have a specific website and much of the content on the Ministry of Energy's website is in Burmese. Tenders and sector updates in both English and Burmese are regularly posted on Moge's Facebook page – <https://www.facebook.com/pages/Myanma-Oil-Gas-Enterprise/419181918132274>

## Onshore company activity

| International companies operating onshore |                        |
|---|------------------------|
| Company name                              | Company base           |
| Nobel Oil                                 | Russia                 |
| CNOOC                                     | China                  |
| SIPC Myanmar                              | China                  |
| North Petro-Chem                          | China                  |
| Goldpetrol                                | Indonesia              |
| MPRL and E&P                              | British Virgin Islands |
| ESSAR                                     | India                  |
| Snog, UPR                                 | Singapore              |
| EPI (Holding) Limited                     | Hong Kong              |
| Geopetrol International                   | Switzerland            |
| Petronas                                  | Malaysia               |
| Jubilant Oil and Gas Pvt                  | India                  |
| PTTEPI                                    | Thailand               |
| Istech Energy EP-5 Ltd                    | Singapore              |
| Asia Orient International Limited         | Hong Kong              |

## Burma's 25 offshore blocks – deepwater and shallow water

| Burma's offshore blocks                      |                  |
|--|------------------|
| Block name                                   | Number of blocks |
| Rakhine Offshore Blocks                      | 2                |
| Mottama/Taninthayi Blocks                    | 6                |
| Rakhine Deepwater Offshore Blocks            | 12               |
| Mottama/Taninthayi Deepwater Offshore Blocks | 5                |



| <b>List of winners of 20 offshore energy blocks awarded in Myanmar</b> |            |  |                |                 |
|--|------------|--|----------------|-----------------|
| <b>Shallow water blocks</b>  |            |  |                |                 |
| No.  | Block/Area | Company awarded  | Country        | Acreage (sq km) |
| 1  | A-4        | BG Asia Pacific + Woodside Energy (Myanmar)            | UK + Australia | 2,200           |
| 2  | A-5        | Chevron (Unocal Myanmar Offshore Co Ltd)               | US             | 10,600          |
| 3  | A-7        | BG Asia Pacific + Woodside Energy (Myanmar)            | UK + Australia | 8,220           |
| 4  | M-4        | Oil India Ltd + Mercator Petroleum Ltd + Oilmax Energy | India          | n/a             |
| 5  | M-7        | ROC Oil + Tap Oil                                      | Australia      | 13,000          |
| 6  | M-8        | Berlanga Holding                                       | Netherlands    | n/a             |
| 7  | M-15       | Transcontinental Group                                 | Australia      | n/a             |
| 8  | M-17       | Reliance Industries                                    | India          | 27,600          |
| 9  | M-18       | Reliance Industries                                    | India          |                 |
| 10   | YEB        | Oil India Ltd + Mercator Petroleum Ltd + Oilmax Energy | India          | n/a             |
| <b>Deep water blocks</b>   |            |  |                |                 |
| 1  | AD-2       | BG Asia Pacific + Woodside Energy (Myanmar)            | UK + Australia | 8,098           |
| 2  | AD-3       | Ophir Energy Plc                                       | UK             | 10,000          |
| 3  | AD-5       | BG Asia Pacific + Woodside Energy (Myanmar)            | UK + Australia | 10,560          |
| 4  | AD-9       | Shell Myanmar Energy + MOECO                           | Netherlands    | n/a             |
| 5  | AD-10      | Statoil + ConocoPhillips                               | Norway + US    | 9,000           |
| 6  | AD-11      | Shell Myanmar Energy + MOECO                           | Netherlands    | n/a             |
| 7  | MD-2       | Eni Myanmar  | Italy          | n/a             |
| 8  | MD-4       | Eni Myanmar  | Italy          | n/a             |
| 9  | MD-5       | Shell Myanmar Energy + MOECO                           | Netherlands    | n/a             |
| 10   | YWB        | Total E&P Myanmar                                      | France         | n/a             |

Source: Ministry of Energy

*The tenders were announced on 26 March 2014.*

## How do offshore PSCs work in Burma?

Burma's deepwater offshore PSCs offer an exploration period of three years, with a possible one or two year extension and a 20-year development period. Royalties recently increased to 12.5 percent from 10 percent and cost recovery limits of 40-50 percent. The royalty payable for onshore production is also 12.5 percent.

### *Deepwater oil*

The government's share will range from 70 percent if output is 50,000 b/d or less to 90% above 150,000 b/d, with the state's share of gas output ranging from 70% at 300,000 Mcf/d to 90% over 900,000 Mcf/d. Signature fees are negotiated by MOGE.

### *Shallow waters*

The production split ranges from 60-90 percent, depending on production rates and well depths. Cost recovery limits are 50 percent in water depths of 600 feet or less and 60 percent above that.

Typically MOGE will be entitled to a 15-25 percent share of any offshore or onshore block production.

### *Incentives*

Imports of equipment and materials and on oil and gas exports are exempt from duties and income tax is set at a rate of 30 percent, with a three year holiday for oil companies.

For onshore production, this translates to 20 percent of oil or 25 percent of gas from the contractor's share of profit production, which is to be sold to the local market at 90 percent of fair market rates.

## Key legislation

- The Oilfields Act (1918)
- The Oilfields Rules (1936)
- The Petroleum Act (1934)
- The Petroleum Rules (1937)
- The Essential Supplies and Services and Act (1947)
- The Oilfields (Labour and Welfare Act) (1951)
- The Petroleum Resources (Development Regulation Act (1957)
- The Law Amending the Petroleum Resources (Development Regulation) Act (1969)
- The Myanmar Petroleum concession Rules (1962)

The nine laws listed above are largely based on British Law Codes of the pre-independence Indian statutes and largely deal with rights characterised as concessions. Although the terms and conditions of PSCs largely govern operations, the Oilfields (Labour and Welfare) Act 1951 remains highly relevant to contractors and service companies.

There are several other laws that play a role in governing the oil and gas sector – though in practice, investors generally enter into PSCs, Performance Compensation Contracts (PCCs), IPRs, Improvement of Marginal Recovery Agreements and Reactivation Agreements. So long as a conflict with an existing law does not exist, the terms and conditions of such contracts will govern the process.

The Myanmar Arbitration Act (1944) is relevant should contractual disputes arise over onshore blocks.

For offshore block related disputes, arbitration is undertaken according to UNCITRAL Arbitration Rules.

## Investment opportunities for British companies

Burma has enormous economic potential based on its strategic location, size and stock of natural resources. Yet despite possessing some 10 trillion cubic feet of proven natural gas reserves and 50 million barrels of crude oil, both onshore and offshore exploration has been limited. The government has become increasingly keen to attract further foreign investment, with the energy and mining sectors among the top seven priorities for achieving an 8 percent increase in GDP. Furthermore, foreign investment regulations have been relaxed to encourage FDI – and as a result, Burma’s oil and gas sector had received over US\$14.3 billion in FDI by the end of August 2014. It currently accounts for about 36.3 percent of the country's total foreign investment. Through foreign investments and explorations in oil and gas blocks bids, Burma aims to bring foreign companies’ technology, expertise and knowledge to the local companies, while at the same time leveraging on the foreign counterparts’ financial capabilities.

The UK government sponsored a trade delegation to Burma in July 2012 – which was the first for almost two decades and included British conglomerates BP and Shell. Since then, onshore and offshore license awards have brought success for a number of British companies, both large and small. The UK's North Sea expertise is well respected in Burma and there will be supply chain opportunities for British companies, particularly for those with experience in Southeast Asia. The Government of Burma is keen to open up trade and investment opportunities to a more diverse range of countries and is striving to promote responsible investment, which adds further leverage to the prospects for British companies to invest.

In March 2014, a statement by the Ministry of Energy indicated that the next bidding round for offshore oil and gas exploration blocks is likely to take place in 2015. UK companies stand in good stead and should be encouraged to explore potential opportunities, while at the same time ensuring that comprehensive assessments of the legal framework and potential risks are carried out. Burma represents enormous potential for British companies, however understanding relevant bureaucratic red-tape and existing laws is essential for success.

## **Responsible business**

UKTI encourages British businesses in Burma to conduct trade and investment responsibly. A report published by the Myanmar Centre for Responsible Business (MCRB) in September, titled Myanmar Oil and Gas - A Sector-Wide Impact Assessment (SWIA) provides sound advice in this regard. Below are some of MCRB's top tips:

### *Recommendations for Investors*

- Undertake comprehensive due diligence on companies in their portfolios
- Engage with investee companies to ensure they meet international standards on responsible business
- Ensure that companies doing business in the oil and gas sector publish robust reports on how risks are managed and assess the impact of their investments and operations

### *Recommendations for Companies*

- Adopt a policy commitment to responsible business conduct and human rights
- Commit to applying international standards of responsible business conduct in the absence of developed national legal frameworks
- Take local complexities and legacies into account when assessing the impacts operations may have
- Integrate issues relating ethnic conflict into all phases of operations
- Communicate with stakeholders, particularly workers and communities, to build understanding and demonstrate transparency and accountability

## **Burma: an EITI candidate country**

In December 2012, Burmese President Thein Sein announced that his government sought to join the Extractive Industries Transparency Initiative (EITI) to encourage responsible investment and ensure that the extraction of natural resources would not adversely affect the environment and local communities. On July 2, Burma was admitted as an EITI candidate country. It has joined a global EITI pool of 17 candidate countries and 29 others deemed compliant. A decision on Burma's bid to be EITI compliant will be announced at the start of 2017.

### *The UK's involvement with EITI in Burma*

Since January 2013, DFID has supported Burma's participation in EITI by providing funding to the coordinating office run by the Myanmar Development Resource Institute (MRDI) and to strengthen civil society's role in ensuring transparency. It also provides funding to the World Bank to carry out technical projects, such as institutional assessments and a review of the current legal framework as it relates to being compatible with EITI requirements, such as the disclosure of company ownership, contract terms, state-owned extractive industries, and the allocation of resource revenues.

### *Policy shift*

Burma's engagement with EITI represents a change in approach under its reformist government, which came to power in 2011. For decades, the former military regime and business cronies plundered the country's vast natural resources: revenues were either pumped into the military or siphoned off and pocketed by high ranking officials. Burmese people received little benefit from the lucrative extractives sector, and in some cases, were directly harmed by it. Many of Burma's resources are located in areas inhabited by ethnic minority groups and projects in oil, gas, mining, agro-industry and hydropower resulted in the militarisation of such areas and fuelled the flames for armed conflicts between ethnic groups and the military. By contrast, Burma's EITI candidate status and its bid to become compliant offers a strong symbol to companies and investors that the country is serious about transparency and responsible business, and that it takes its citizens' concerns into account.

From 13- 16 October, Burma will host a meeting of the International EITI Board in Nay Pyi Taw. The event is expected to generate further momentum to ongoing efforts aimed at bringing about positive change to Burma's extractive sector.

## Annex

### Key government ministers in Burma

|  |                |
|--|----------------|
| Minister of Commerce:                                      | Win Myint      |
| Minister of Construction:                                  | Kyaw Lwin      |
| Minister of Electric Power:                                | Khin Maung Soe |
| Minister of Energy:  | Zayar Aung     |
| Minister of Finance:                                       | Win Shein      |
| Minister of Industry:                                      | Maung Myint    |
| Minister of Information:                                   | Ye Htut        |
| Minister of Mines:   | Myint Aung     |
| Minister of National Planning<br>and Economic Development: | Kan Zaw        |
| Minister of Science and Technology:                        | Ko Ko Oo       |

### Useful websites and further reading

- UKTI Rangoon:  
<https://www.gov.uk/government/world/organisations/ukti-burma>
- Ministry of Energy:  
<http://www.energy.gov.mm/>  
<https://www.facebook.com/MinistryOfEnergy.Myanmar>
- Myanma Oil and Gas Enterprise:  
<https://www.facebook.com/pages/Myanma-Oil-Gas-Enterprise/419181918132274>
- Ministry of Electric Power  
<http://moep1.blogspot.com/>
- Ministry of Industry  
<http://www.industry.gov.mm/en>
- Directorate of Investment and Company Administration (DICA)

<http://dica.x-aas.net/dica/>

- Ministry of Mines  
<http://www.mining.com.mm/>
- Ministry of Science and Technology  
<http://most.gov.mm/most2eng/>
- EITI in Burma  
<http://myanmareiti.org/>
- New Energy Architecture Myanmar – ADB Report  
<http://www.adb.org/publications/new-energy-architecture-myanmar>
- Myanmar Oil & Gas Sector-Wide Impact Assessment (SWIA)  
<http://www.myanmar-responsiblebusiness.org/news/swia/oil-and-gas-swia.html>
- US Energy Information Administration – Myanmar  
<http://www.eia.gov/countries/country-data.cfm?fips=bm>
- VDB Loi – Go Big or Go Home: 5 Things to consider when bidding for Myanmar’s offshore blocks  
<http://www.vdb-loi.com/wp-content/uploads/2013/10/Go-Big-or-Go-Home-5-Things-to-Consider-when-Bidding-for-Myanmars-Offshore-Blocks.pdf>